



COALBED METHANE EXTRA

A publication of the Coalbed Methane Outreach Program (CMOP)

www.epa.gov/coalbed



West Elk Mine Expansion and Degasification Plans Approved

West Elk Mine (operated by Mountain Coal Company) recently applied for and received approval for an expansion of its mining and methane drainage operations in Gunnison County, Colorado. The deliberation over this planned expansion among several federal agencies and other groups received considerable local press coverage. One of the key issues focused on the fate of the additional methane that would be emitted from the mine's degasification system. This article summarizes this process, which highlights the numerous barriers that still affect many coal mine methane (CMM) project opportunities in the United States. As the debate over climate change legislation moves forward in the U.S. Congress and awareness of greenhouse gas emissions increases around the country, lawmakers, regulators, and

non-governmental organizations (NGOs) will continue to focus more attention on CMM reduction opportunities.

Expansion of West Elk coal mine

In 2006, Mountain Coal Company, an Arch Coal subsidiary, submitted a request to the Colorado Division of Reclamation, Mining and Safety to expand production and add methane drainage at its West Elk mine. The proposed *Deer Creek Shaft and E Seam Methane Drainage Wells Project* entailed drilling 168 methane drainage wells and a new 28-foot diameter ventilation and escape way shaft. Because the revision to the mining permit would require construction, operation, and reclamation on the surface of

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U.S. EPA Developing Greenhouse Gas Reporting Rule

On December 26, 2007, President Bush signed the FY2008 Consolidated Appropriations Act (Public Law 110-161) which authorized EPA to "...develop and publish a draft rule not later than 9 months after the date of enactment of this Act, and a final rule not later than 18 months after the date of enactment of this Act, to require mandatory reporting of greenhouse gas (GHG) emissions above appropriate thresholds in all sectors of the economy...." EPA will use its authority under the Clean Air Act (Sections 114, 208) to establish this program.

This is an ambitious timetable but EPA is working toward the deadlines. EPA is aware of existing methods for reporting already at the federal and state levels and intends to build on those existing approaches, rather than starting from scratch.

Congress set a broad scope for this program, including reporting of all six greenhouse gases: carbon dioxide (CO₂), as well as more potent gases such as methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). The program may include reporting by both upstream fuel and chemical suppliers and as well as downstream

see *GHG REPORTING RULE*, page 4



West Elk *from page 1*

the Gunnison National Forest, the U.S. Forest Service (FS) was charged with evaluating the impact of the request on public health and safety (such as impacts to livestock foraging and riparian habitat) and on coal reserves development. In making a decision based on the request, the FS drafted an Environmental Impact Statement (EIS). U.S. EPA's regional office reviewed the EIS based on its authority under the National Environmental Policy Act (NEPA).

The final EIS (August 2007) included an analysis of the methane that would be emitted from the proposed ventilation shaft and drainage wells. Methane is both a clean energy source and a potent greenhouse gas that contributes to global warming if emitted to the atmosphere. Under the right circumstances, however, methane can be captured from coal mines and utilized as productive energy or destroyed. Although past West Elk coal production has generated substantial CMM emissions, the final EIS did not include a detailed analysis of capture and use of the coal mine methane or flaring of the methane gas. With respect to these two issues, the EIS cited issues with legal rights to use the gas and concerns of the Mine Safety and Health Administration (MSHA).

On August 17 and November 8, 2007, the Forest Service issued two Records of Decision (RODs) that together approved the drilling and casing of up to 168 drainage wells located on up to 146 drilling pads, the installation of degassing equipment, and the operation and maintenance of wells for methane drainage while recovering coal in the E seam. It also approved roads to all wells, except for eight to ten wells authorized under a coal lease issued after enactment of the 2001 Inventory Roadless Area (IRA) rule. The ROD did not require Arch Coal to utilize or destroy methane emissions associated with the new action.

A Denver-based NGO appealed the Forest Service decision on the grounds that methane destruction was not adequately considered as an alternative in the EIS. On February 13, 2008, the regional Forest Service office agreed that the ROD "failed to consider in detail an alternative that utilized flaring of methane" and reversed the decision, remanding it back to the Forest Supervisor. The Forest Supervisor and his staff conducted further research and, based on input received from MSHA, considered but eliminated from detailed study the flaring of methane emissions as a viable alternative at this time. At press time, the November 8, 2007, decision by the Forest Service stands.

Barriers to CMM Project Development on Federal Lands

The decision process for approving West Elk mine's degasification and expansion plans have highlighted several obstacles to CMM projects, especially those on U.S. federal lands. One such issue is the gas ownership or right to recover and use the methane. The methane in a coal seam is legally considered to be separate from the coal estate itself and must be leased separately. On federal lands, the gas lease must be obtained from the U.S. federal government. According to the Bureau of Land Management (BLM), a coal company does not have the legal right to utilize, for profit, the methane associated with its coal production at a coal mine on federal land unless it also maintains a lease for natural gas in the area. In the West Elk case, BLM was actively involved and has taken steps to nominate the associated natural gas estate for lease, but this has not yet occurred.

A second challenge in the West Elk case was associated with surface disturbance issues on federally protected lands. The EIS for the West Elk proposal for mine and degasification expansion focused on the impact that CMM degasification operations would have on the land surface in protected areas designated as "roadless." If a CMM utilization project were also to be considered, gathering, compression, and transportation infrastructure would be difficult to site in an inventory roadless area. These surface restrictions, coupled with the extreme terrain and topography, would pose challenges for potential CMM project development.

Finally, the issue of the potential for flaring the drained mine methane emerged in the West Elk case, and its potential use at other U.S. coal mines remains unclear. The West Elk mine proposal did not include flaring as an alternative, but during the official comment process the issue was raised that flaring of the methane (to reduce its greenhouse gas emissions) should be considered. In general, EPA's perspective is that when the productive and economic utilization of coal mine methane is ruled out because of site-specific conditions, destruction of the methane through combustion (e.g., flaring) is a viable, second-best option to reduce GHG emissions. Although methane flares at coal mines have been successfully used at active underground mines in the United Kingdom, methane flares at active underground coal mine shafts are extremely rare (if present at all) in the United States.¹ The U.S. Mine Safety and Health Administration (MSHA), the agency that regulates underground coal mines for safety, does not have a clear policy regarding the permissibility of flaring at

see WEST ELK, page 4

¹ EPA is not aware of any flares currently operating at active U.S. coal (or other) underground mines.



Methane to Markets Update

Coal Mine Methane Subcommittee Meeting in Italy

Please join us 29-30 April 2008 in Sardinia, Italy, for an exciting and informative two days that will include:

- Proposals for country-specific strategies for promoting the recovery and use of coal mine methane
- Discussion of effective ways to engage the private sector
- An update on the carbon market for coal mine methane projects
- A site visit to a Carbosulcis SpA coal mine

Registration, more detailed meeting information, and a draft agenda is now available on the Methane to Markets website at www.methanetomarkets.org/events/2008/coal/coal-29apr08-2.htm

Successful CMM Recovery and Utilization Workshop in Poland

An international workshop on coal mine methane (CMM) was hosted by the Central Mining Institute of Katowice, AGH University of Science & Technology, and the Mineral & Energy Economy Research Institute of the Polish Academy of Sciences from 27-29 February 2008 in Szczyrk, Poland. The U.S. Environmental Protection Agency and the United Nations Economic Commission for Europe assisted with the workshop design and implementation. The workshop was also sponsored by the Jastrzebie Coal Company, a major Polish coal mining company, Lennetal Industrie Service GmbH from Germany, and MEGTEC Systems AB from Sweden. With over 100 participants, including one-third from outside Poland, the workshop addressed newly-developed technologies for coal mine methane drainage and utilization, project financing options, and project management and integration. There was a comprehensive agenda for the two-day event. The workshop covered a wide range of technical and financial issues related to coal mine methane capture and use, including sessions on:

- Key aspects of a successful coalmine methane project
- Current developments in methane degasification
- Methane production and gathering systems
- Use of CMM from methane drainage systems



Field Trip to the Jastrzebie Coal Company's Pniowek Mine

- Financing options
- Ventilation air methane (VAM)
- Project integration and execution
- Roundtable on barriers to implementation
- Flaring and abandoned mine methane

The presentations delivered at the workshop are available at www.imf.net.pl/node/28 and the program is available at www.imf.net.pl/node/26

Currently, there are 33 active coal mines in Poland, 29 of which are classified as gassy. Twenty of the mines are equipped with methane drainage systems and 14 of them are utilizing the produced CMM. The CMM/CBM resources of Poland are estimated to be between 350 billion cubic meters (Bcm) and 1,300 Bcm, with an exploitable gas resource of 95 Bcm. Approximately 250 million cubic meters (MMcm) of methane was recovered from the mines in 2006, representing about 30% of the total emissions of 851 MMcm. The number of coal mines in Poland has decreased over the past two decades. From 1989 – 2005, Poland closed 83% of their older coal mines (mostly by merging), but only ~19% of the gassy mines were shut. This means that the share of gassy coal mines in Poland has been increasing and provide significant opportunities for CMM project development.



GHG Reporting Rule *from page 1*

emitters. Congress provided flexibility and discretion to EPA in writing the rule, particularly in determining appropriate thresholds and the frequency of reporting.

EPA welcomes stakeholder input and plans to reach out to stakeholders through information sharing sessions as well as public meetings.

Further information and current activities related to the GHG Reporting Rule will be posted on the EPA website soon. The site will be updated as more information and materials become available. 🗉

USEA Workshop on CMM in China RESERVE YOUR SPOT TODAY!

CMOP is working with the United States Energy Association (USEA) to develop a workshop in China called "Coalbed Methane and Coal Mine Methane Power Generation." The four-day event is part of the U.S. China Natural Gas Training series funded by the United States Trade and Development Agency (USTDA). The training will take place in Dalian City, Liaoning Province from May 28 to 31, 2008.

Sessions (conducted in English with Chinese translation) will cover:

- ▶ Opening remarks by EPA and China's National Development and Reform Commission (NDRC);
- ▶ CMM resource assessment, planning, and drainage;
- ▶ Methane drainage techniques; and
- ▶ The use of CMM for power generation.

The entire natural gas training series is being organized for China's National Development and Reform Commission (NDRC), but other interested parties can attend. A fee of \$40 will apply to non-NDRC attendees and can be paid during in-person registration on May 27, 2008. Registration and background information can be found on the USEA website at: www.usea.org/natural-gas-training/index.htm. Check back soon on the USEA and CMOP websites for venue details. To learn more about event sponsorship opportunities, contact Marjorie Jean-Pierre at mjean-pierre@usea.org or 1-202-312-1230.

West Elk *from page 2*

coal mines. The Forest Supervisor's final decision to uphold approval of West Elk's proposed expansion and degasification plans (which does not require the mine to consider flaring) was based at least in part on this uncertainty.

Next Steps

Methane is not regulated as a pollutant under the Clean Air Act, and its mitigation is not mandated by existing federal law. Nonetheless, a number of U.S. coal mining companies have been voluntarily engaged in coal mine methane recovery and utilization projects that generate significant profits, while substantially reducing U.S. coal mine methane emissions. In 2006, U.S. coal mines captured and recovered over 46 billion cubic feet (Bcf), equivalent to 19 million metric tonnes of CO₂ equivalent. The West Elk ROD process revealed to law makers, regulators, and the public the obstacles that can stymie such environmentally-friendly and economically-sound activities. As a result, the will to address some of these obstacles is stronger than ever. EPA's Coalbed Methane Outreach Program (CMOP) plans to collaborate with sister agencies such as MSHA, FS, and BLM to make it easier and more straightforward for a coal mine to reduce its GHG emissions voluntarily. 🗉

M2M Update *from page 3*

Four New Countries Join the Methane to Markets Partnership

Mongolia, the Philippines, Thailand, and Pakistan have become members of the Methane to Markets Partnership. Both Mongolia and Pakistan have coal resources. Joining the M2M program will enable these countries to benefit from the methane recovery experience of companies and institutions in other Partner countries.

For additional info visit:

www.methanetomarkets.org 🗉

www.epa.gov/coalbed
www.methanetomarkets.org

EPA Launches Feasibility Studies in China

The United States Environmental Protection Agency (EPA) has launched three full-scale feasibility studies in China that will assess the technical and economic viability of implementing coal mine methane (CMM) utilization projects at specific mine sites. EPA will provide technical expertise and tools to conduct the necessary analyses, which are scheduled to be completed by early 2009.

These projects support the goals of the Methane to Markets Partnership. EPA's assistance is also part of the U.S. commitment to help develop up to 15 coal mine methane (CMM) projects under the second U.S.-China Strategic Economic Dialogue (SED).

EPA has already partnered with two companies in China to conduct these studies:

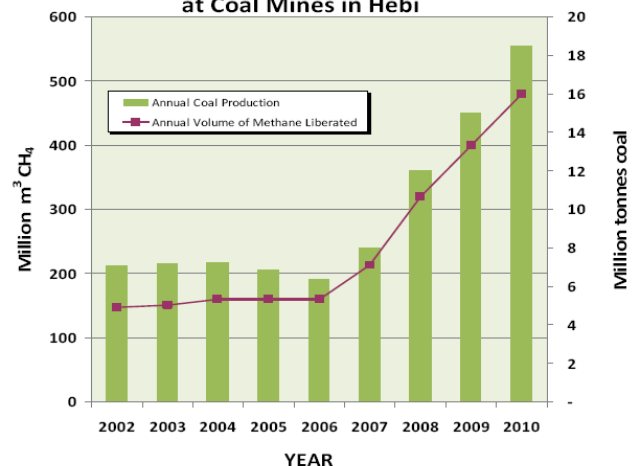
- ▶ Sakel Coal, a consortium of two U.S. companies and the Hebi Coal Administration, was formed to develop the CMM resources of six mines in the Hebi coal mining area (located in China's central Henan Province). The feasibility study will be conducted by EPA contractor Advanced Resources International. This project is estimated to reduce GHG emissions by up to **250,000** metric tons of CO₂e each year, equivalent to removing up to 45,000 passenger vehicles from the roads each year. This feasibility study is also considered a "Flagship Project" under the Asia-Pacific Partnership on Clean Development and Climate Coal Mining Task Force.
- ▶ Songzao Coal Mining and Electricity Company, wholly owned by Chongqing Energy Investment Group. The feasibility study will be conducted by EPA contractor Raven Ridge Resources. Based on a preliminary assessment, estimated emissions reductions from this project are **60 to 100** million cubic meters (**2.1 to 3.5** million cubic feet) of methane a year, equivalent to between **0.8 and 1.4** million metric tons of CO₂e avoided per year. This is equivalent to removing up to 250,000 passenger vehicles from roads each year.

A site for the third feasibility study, to be conducted by Advanced Resources International, has not yet been selected.

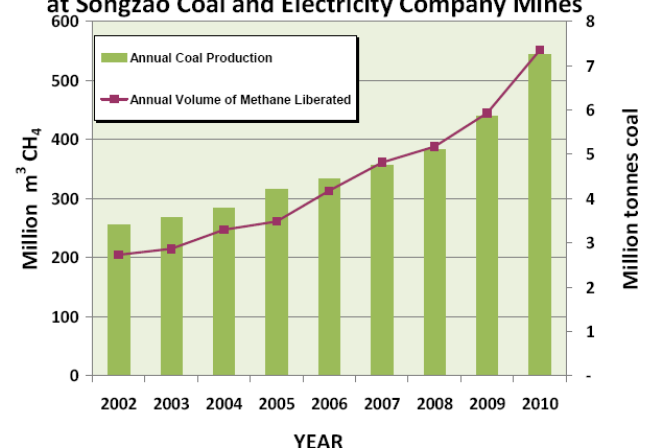
A feasibility study is a critical step in developing a CMM project and includes the following components:

- ▶ an analysis of methane resource data,
- ▶ a market assessment for the produced methane,
- ▶ an evaluation of degasification and methane utilization technologies,
- ▶ a technical analysis with preliminary engineering design work,
- ▶ an estimate of project capital and operating costs, and
- ▶ a full economic and financial analysis with cash flow projections.

Annual Coal Production and Methane Liberated at Coal Mines in Hebi



Annual Coal Production and Methane Liberated at Songzao Coal and Electricity Company Mines





Proposed FY 2009 Presidential Budget

President Bush's \$3.1 trillion fiscal year (FY) 2009 budget request to Congress includes funding for several programs and agencies related to coal mining and coal mine methane.

The proposed budget for the **U.S. Environmental Protection Agency** is \$7.14 billion, slightly lower than the FY 2008 request of \$7.2 and the \$7.5 billion budget enacted by Congress. The president requests \$938.6 million in FY 2009 for EPA's Clean Air and Global Climate Change programs, which aim to improve air quality, reduce human and environmental health risks and reduce greenhouse gas intensity by enhancing partnerships with businesses and other sectors. This request is an increase from the \$910.4 million requested for FY 2008, but is lower than the \$971.7 million enacted by Congress. EPA's FY 2009 proposed budget includes the following:

- ▶ \$4.4 million for the Methane to Markets program, which promotes methane recovery and use at landfills, coal mines, oil and natural gas facilities, and biological waste management. This request is identical to the request made in FY 2008.
- ▶ \$5 million to support the Asia Pacific Partnership on Clean Development and Climate's international efforts to reduce greenhouse gas emissions. The proposed Asia-Pacific funding is the same level requested for FY 2008.

The president requested \$25 billion in overall FY 2009 funding for the **U.S. Department of Energy (DOE)**, up from the \$24.3 billion requested in the FY 2008 budget and the \$23.9 enacted by Congress. The president's request includes the following:

- ▶ \$156 million to fund DOE's restructured approach to funding the FutureGen project, which aims to demonstrate cutting-edge carbon capture and storage (CCS) technologies at multiple commercial-scale Integrated Gasification Combined Cycle clean coal power plants.

- ▶ \$85 million to support the Clean Coal Power Initiative, an increase over the \$73 million requested last year.
- ▶ \$407 million for advanced coal research and development activities, including \$149 million for Carbon Sequestration Regional Partnerships that are charged with studying the injection of up to one million tons of carbon dioxide into geologic formations.

The president has requested \$53.1 billion to fund the **Department of Labor** in FY 2009, including \$332 million for the Mine Safety & Health Administration (MSHA), which oversees all active mines. For coal mine safety and health, MSHA's proposed budget calls for \$145 million, a drop from the \$154.7 million enacted for FY 2008.


For the **Department of the Interior (DOI)**, the president's budget request calls for \$10.7 billion in FY 09 funding. This budget includes the following:

- ▶ For the Office of Surface Mining (OSM), the budget includes:
 - \$298.4 million in Abandoned Mine Land (AML) Reclamation grants to states and tribal governments.
 - \$30.8 million for abandoned mine reclamation appropriations.
- ▶ The proposed Bureau of Land Management (BLM) FY 2009 budget request is \$1.002 billion, including \$35 million to fund the Mining Law Administration program.

For additional information:

The president's FY 2009 budget request is available at:

www.whitehouse.gov/omb/budget/fy2009/

Information on the President's FY 2009 budget request for EPA: www.epa.gov/ocfo/budget/index.htm 

What do you want to know about?

If you have suggestions or requests for future CBM Extra content, please drop us a line.

Jemelkova.Barbora@epa.gov or Somers.Jayne@epa.gov



Update - Legislative Activity on the Hill

The remainder of the second session of the 110th Congress has potential for important legislative activity related to climate change. Several bills that would impose a mandatory cap-and-trade emissions reduction program have already been introduced. On December 5th, the Senate Environment and Public Work Committee voted 11-8 to favorably report the Lieberman-Warner Climate Security Act (S. 2191). This is the first greenhouse gas (GHG) cap-and-trade bill that has ever been voted out of a Congressional committee.

U.S. EPA recently analyzed the economic and GHG impacts of S. 2191 and found that relative to the reference case scenario, S. 2191 would reduce U.S. GHG emissions by about 40 percent in 2030 and by about 56 percent in 2050. Compared to historical emissions, emissions under S. 2191 would be approximately 11 percent lower than 1990 levels in 2030 and 25 percent lower than 1990 levels in 2050. According to EPA's analysis, the electricity sector provides the greatest source of emissions reductions, largely through an expansion of nuclear power and de-

ployment of carbon capture and storage (CCS). With enabling technologies widely available, electricity prices are projected to increase 44 percent by 2030 and 26 percent by 2050.

The Energy Information Administration (EIA) is likely to make the results of its analysis of S. 2191 available to the public by mid- to late-April.

Several other cap-and-trade proposals have been introduced in the 110th Congress. Table 1 summarizes the major proposals. Figure 1 illustrates the GHG emission targets of

see *LEGISLATIVE ACTIVITY*, page 8

Table 1. Economy-Wide Cap-and-Trade Proposals in the 110th Congress

Bill	Scope of Coverage	2010-2019 Cap	2020-2029 Cap	2030-2050 Cap
Lieberman – Warner (S. 2191)	All 6 GHGs Economy wide – upstream for transport fuels & natural gas; downstream for large coal users; separate cap for HFC consumption	4% below 2005 level in 2012	19% below 2005 level in 2020	71% below 2005 level in 2050
Bingaman – Specter (S. 1766)	All 6 GHGs Economy wide – upstream for natural gas & petroleum; downstream for coal	2012 level in 2012	2006 level in 2020	1990 level in 2030 President may set long-term target ≥60% below 2006 level by 2050 contingent upon international effort
McCain – Lieberman (S. 280)	All 6 GHGs Economy wide – upstream for transportation sector; downstream for electric utilities & large sources	2004 level in 2012	1990 level in 2020	20% below 1990 level in 2030 60% below 1990 level in 2050
Sanders – Boxer (S. 309)	All 6 GHGs Economy wide – not specified	2010 level in 2010 2% per year reduction from 2012-2020	1990 level in 2010	27% below 1990 level in 2030 53% below 1990 level in 2040 80% below 1990 level in 2050
Kerry – Snowe (S. 485)	All 6 GHGs Economy wide – not specified	2010 level in 2010	1990 level in 2020 2.5% per year reduction from 2020-2029	3.5% per year reduction from 2030-2050
Olver – Gilchrest (H.R. 620)	All 6 GHGs Economy wide – upstream for transportation sector; downstream for electric utilities & large sources	2004 level in 2012	1990 level in 2020	22% below 1990 level in 2030 70% below 1990 level in 2050
Waxman (H.R. 1590)	All 6 GHGs Economy wide – not specified	2009 level in 2010 2% per year reduction from 2011-2020	1990 levels in 2020 5% per year reduction from 2020-2029	5% per year reduction from 2030-2050 80% below 1990 levels in 2050

Source: Modified from Pew Center on Global Climate Change, *Comparison of Economy-Wide Cap-and-Trade Proposals in the 110th Congress* (January 2008) www.pewclimate.org

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www.epa.gov/coalbed/join/index.html to sign-up now!

New Publications!

CMOP Publishes Revamped Report on CMM Upgrading Technologies

In its new report, *Upgrading Drained Coal Mine Methane to Pipeline Quality* (PDF), (26 pp, 379K) the Coalbed Methane Outreach Program (CMOP) provides an overview of gas upgrading technologies that can be used to remove contaminants typically found in coal mine methane (CMM). This report provides several examples of successful technology installations in operation at coal mines today. The report's appendix contains profiles of vendors with commercially-available technologies as well as technologies in the demonstration and R&D phases. The report can be found on the CMOP website, along side other resources (click on "Implementing a Project" under "Documents"): www.epa.gov/cmop/resources/imp_proj.html

Draft 2008 "Inventory of U.S. Greenhouse Gas Emissions and Sinks" Available

The U.S. Environmental Protection Agency has issued a draft of its annual report that analyzes sources of greenhouse gas emissions, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006*.

The major finding in this year's draft report is that overall emissions during 2006 decreased by 1.5 percent from the previous year. This decrease was due primarily to a reduction in carbon dioxide emissions associated with fuel and electricity consumption. Total U.S. greenhouse gas emissions in 2006 were about 7,202 million metric tons of CO₂ equivalent based on emissions of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Overall, emissions have grown by 14.1 percent from 1990 to 2006 while the U.S.

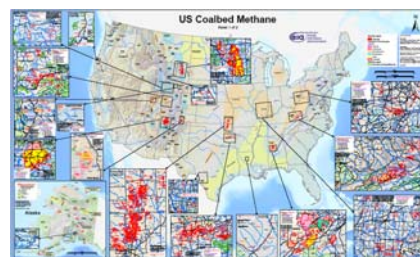
economy has grown by 59 percent over the same period.

More information: www.epa.gov/climatechange/emissions/usinventoryreport.html

United States Coalbed Methane Maps – UPDATED

The Energy Information Administration's coalbed methane resources map and data (including a spatial data file of the 100 gassiest U.S. underground coal mines) are now posted on the EIA website and are downloadable at:

www.eia.doe.gov/pub/oil_gas/natural_gas/analysis_publications/maps/maps.htm#Top



Legislative Activity from page 7

the various proposals, according to analysis by the Pew Center on Global Climate Change. These legislative proposals include coverage of the six major greenhouse gases (carbon dioxide, methane, nitrous oxide, perfluorocarbons, hydrofluorocarbons, and sulfur hexafluoride).

U.S. EPA has also conducted analyses of the economic impacts of S. 1766 and S.280. See www.epa.gov/climatechange/economics/economicanalyses.html

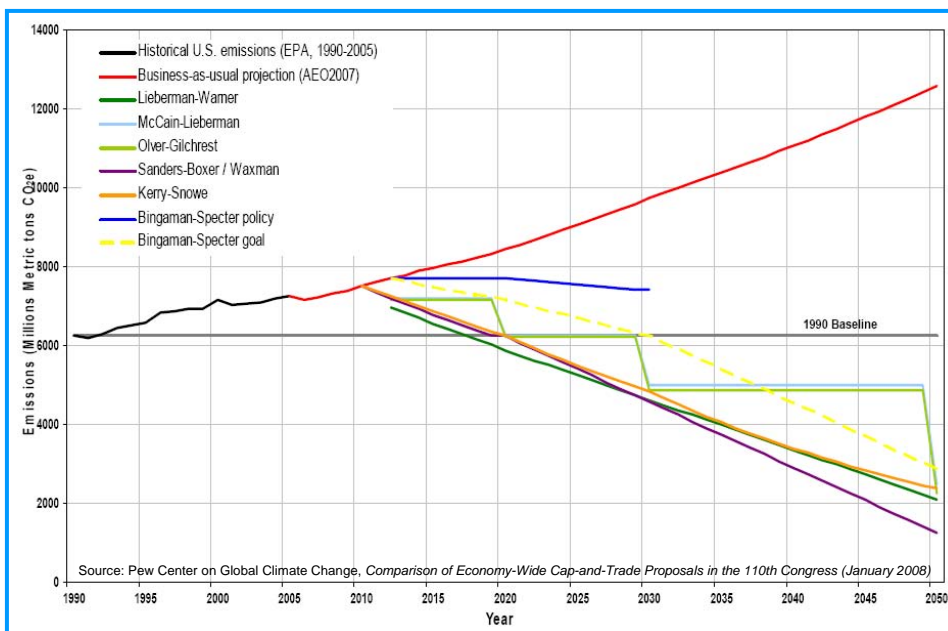


Figure 1. Illustration of Total U.S. GHG Emissions Targets in Legislative Proposals

Courtesy of the Pew Center on Global Climate - www.pewclimate.org



CBM/CMM News

China's Coalbed Methane Resources Make News

An article appearing in *BusinessWeek* (3 January 2008) emphasizes the importance of coal to China and discusses the country's efforts to take advantage of coalbed / coal mine methane by using it to power steel mills, heat homes, and fuel public buses and taxis. Until recently, most Chinese coal mines have simply released coal mine methane (CMM) directly into the atmosphere. The Chinese government has set an ambitious target to increase coalbed methane (CBM) use from 3% of the country's total natural gas consumption in 2006, to 10 billion cubic meters, or 10% of total gas use, by 2010. The article highlights the numerous Chinese policies initiated in the past 18 months, designed to achieve this goal.

According to the article, in the past year or so foreign investment in China's CBM and CMM industries has skyrocketed. The Kyoto Protocol has created financial incentives for Chinese power plants to switch from coal to coal mine methane, since they are eligible for carbon credits under the Clean Development Mechanism (CDM). China's CBM industry is currently constrained by the existing pipeline infrastructure capacity. Until pipelines are built connecting natural gas fields in Central and Western China to cities along the coast, coalbed methane companies must compress or liquefy methane and ship it as liquefied natural gas (LNG) or compressed natural gas (CNG) to gas stations and other customers.

BusinessWeek, 3 January 2008
www.businessweek.com/globalbiz/content/jan2008/gb2008013_784582.htm?chan=top+news_top+news+index_global+business

Wall Street Banks Establish The Carbon Principles

Three of the world's leading financial institutions announced the formation of The Carbon Principles, climate change guidelines for advisors and lenders to power companies in the United States. These Principles are the result of a nine-month intensive effort to create an approach to evaluating and addressing carbon risks in the financing of electric power projects.

Citigroup Inc., J.P. Morgan Chase & Co., and Morgan Stanley say they expect a federal greenhouse-gas-emissions cap in the next few years that will make conventional coal-fired power plants riskier investments. Given the current uncertainty, the banks plan to make conservative assumptions as they screen power-plant financing requests. Under the Carbon Principles, the banks will require companies applying for coal-fired power-plant financing in the U.S. to show they've evaluated energy-efficiency and renewable-energy options and found them insufficient. As for proposed coal plants, the banks will seek evidence that the plants are designed with the capacity to capture and store underground their future carbon-dioxide emissions, or that the plants will be able to charge high enough electricity rates to pay for extra emission allowances.

For additional information see Citigroup's press release issued 4 February 2008 at:

www.citigroup.com/citigroup/press/2008/080204a.htm

Environmental Capital (WSJ Blog), 4 February 2008 blogs.wsj.com/environmentalcapital/2008/02/04/wall-street-tells-big-coal-not-so-fast/trackback/

Trade Group Expects Record Coal Demand in 2008

The National Mining Association expects 1.16 billion tons of coal to be mined this year in the U.S., topping the 1.15 billion tons mined last year and 2 million tons shy of the production record set in 2006.

Greenwire, 24 January 2008
www.greenwire.com (subscription required)

International Coal Price Predicted to Hit Record

Merrill Lynch has raised its forecasts for contract prices of coal for power plants and steel mills in 2008, predicting that prices will jump by as much as 200 percent, after recent supply disruptions resulted in a severe global shortage. The bank predicted that contract prices for coking coal, used to make steel, will reach a record high of \$300 a tonne, a three-fold rise from last year, due to recent supply disruptions from Australia, China, and South Africa, combined with powerful Asian demand.

Brokerage Goldman Sachs JB Were predicted that prices for coking coal and thermal coal would reach \$200 a tonne and \$130 a tonne, respectively.

Reuters, 7 March 2008
in.reuters.com/article/businessNews/idINIndia-32348920080307?sp=true

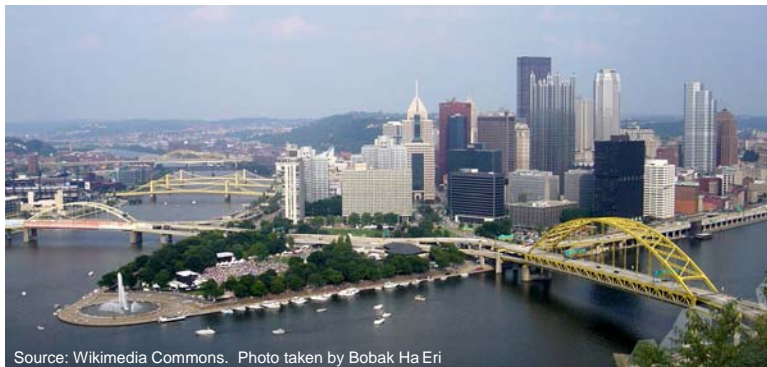
SAVE THE DATE!

2008 U.S. CMM Conference

28 – 30 October 2008
Omni William Penn Hotel
Pittsburgh, PA

U.S. EPA is pleased to announce this year's U.S. Coal Mine Methane Conference. After a successful 2007 conference in St. Louis, the EPA's Coalbed Methane Outreach Program (CMOP) aims to bring you a bigger and better event in 2008 with an in-depth look at new projects, project updates, industry forecasts, new technologies, and more.

We'll also take discussions about coal mine methane out of the conference room and into the field, with a can't-miss field trip to a nearby Consol Energy/CNX Gas site to observe its advanced degasification and methane recovery operation.



Source: Wikimedia Commons. Photo taken by Bobak Ha Eri

This year's conference takes place at the Omni William Penn Hotel, a luxury hotel in downtown Pittsburgh close to many of the city's best attractions. EPA has secured a limited number of rooms at the government per diem rate - currently \$108.00 per night - for the conference. To make your reservations, simply call 1-800-THE-OMNI, and mention the U.S. Coal Mine Methane Conference to receive this special rate.

Look for more details, agenda, and registration information for the 2008 U.S. Coal Mine Methane Conference, soon to be posted online at www.epa.gov/cmop/conf/index.html. You may also e-mail meetings@erg.com for more information about the event.

We look forward to seeing you in Pittsburgh!

Feasibility Studies from page 5

The results of the technical analyses will be summarized along with project implementation recommendations in a comprehensive final report.

China is the world's largest coal producer and has significant opportunity to recover and utilize coal mine methane emissions as a clean energy source. The U.S. and China have worked collaboratively together since the early 1990s to promote the development of CMM recovery and utilization projects. In 1994, EPA and China established a Coalbed Methane Clearinghouse, operated by the China Coal Information Institute (CCII) within the State Administration of Worker Safety (SAWS). EPA continues to support the Clearinghouse in their efforts to advance CMM development in China. The U.S. and China continue to work together through the Methane to Markets Partnership to advance coal mine methane recovery in China. Both the Sakel Coal and Songzao Mine sites were featured as project opportunities at the 2007 Partnership Expo in Beijing, China (www.methanetomarkets.org/events/2007/all/expoprojects.htm). 

CMOP Contacts

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Upcoming CBM/CMM Events

6th Annual CoalTrans China

14 – 15 April 2008
Beijing, China
Website: www.coaltrans.com/default.asp?Page=11&eventid=ECK179

Miningworld Russia

16 – 18 April 2008
Crocus Expo
Moscow, Russia
Website: www.primexpo.ru/mining/eng

2008 AAPG Annual Convention

20 – 23 April 2008
San Antonio, Texas
Program themes include Hydrocarbons from Shale & Coal
Website: www.aapg.org/sanantonio/

North American Coalbed Methane (NACBM) Spring Forum

29 – 30 April 2008
Hilton Garden Inn - Southpointe
Canonsburg, Pennsylvania
Contact: K. Aminian
Email: khaminian@mail.wvu.edu

Methane to Markets Coal Subcommittee Meeting

29 – 30 April 2008
Cagliari, Sardinia, Italy
Website: www.methanetomarkets.org/events/2008/coal/coal-29apr08-2.htm

Coal Prep 2008

29 April – 1 May 2008
Lexington Center
Lexington, Kentucky
Website: coalaggprepshow.com/CoalPrep2008/Public/MainHall.aspx?ID=1676

Carbon Expo

7 – 9 May 2008
Cologne, Germany
Website: www.carbonexpo.com/

2008 Coalbed and Shale Gas Symposium

19 – 23 May 2008
The University of Alabama Bryant Conference Center
Tuscaloosa, Alabama
Website: www.coalbed.ua.edu/

USEA - U.S. EPA - USTDA Workshop: CBM Power Generation

28 - 31 May 2008
Dalian City, Liaoning Province, China
Contact: Marjorie Jean-Pierre
Email: mjean-pierre@usea.org
Website: www.usea.org/natural-gas-training/index.htm

12th U.S. / North American Mine Ventilation Symposium

9 – 11 June 2008
The University of Nevada, Reno
Reno, Nevada
Website: www.unr.edu/ventsymp2008/

China Clean Coal Summit 2008

26 – 27 June 2008
Shanghai, China
Contact: Boris Xiong
Telephone: +86 21 6247 8898
Email: boris.xiong@merisis-asia.com

CMM Recovery and Utilization Workshop

16 – 17 July 2008
Guiyang, Guizhou, China
Contact: Katie Scott
Email: kscott@gzcmm.org
Website: www.gzcmm.org/

7th European Coal Conference

26 – 29 August 2008
Lviv, Ukraine
Contact: Dr. Andriy Poberezhskyy
Phone: (0322) 635-047
Email: igggk@mail.lviv.ua
Website: www.iggcm.org.ua

2008 Asia Pacific Coalbed Methane Symposium

22 – 24 September 2008
Brisbane, Australia
Website: www.uq.edu.au/apcbm2008/

MINExpo International 2008

22 – 24 September 2008
Las Vegas Convention Center
Las Vegas, Nevada
Phone: 630-434-7779
Email: minexpo@heexpo.com
Website: www.minexpo.com

The 25th Annual International Pittsburgh Coal Conference

29 September – 2 October 2008
The Westin Convention Center
Pittsburgh, Pennsylvania
Website: www.engr.pitt.edu/pcc/2008%20Conference.htm

2008 U.S. CMM Conference

Sponsored by EPA's Coalbed Methane Outreach Program
28 – 30 October 2008
Omni William Penn Hotel
Pittsburgh, Pennsylvania
Email: meetings@erg.com
Website: www.epa.gov/cmop/conf/index.html